

An Inaugural Thesis

on

Read March 29th 1824
W. R. H.

Dysentery

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By

Greenberg Ridgely Junr.

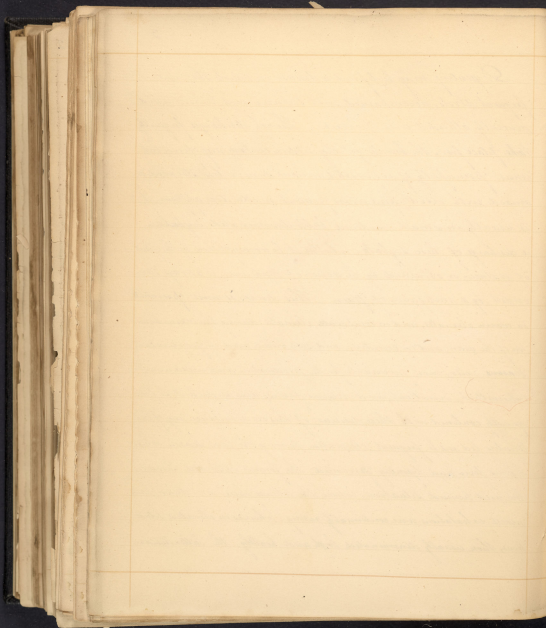
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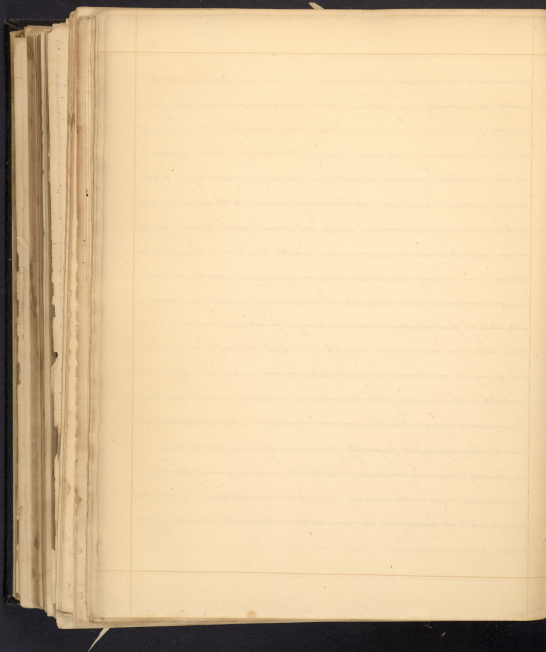
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Dysentery may be defined a disease in which there are frequent stools, accompanied with tormina and tenesmus, and generally attended with pyrexia. Though discharges frequently take place from the bowels, yet they seldom contain any feces, but consist principally of unassimilated mucus, mucus less streaked or mixed with blood; and when feculent matter does appear, it is usually in small hardened balls denominated scybala, a discharge of these scybala, whether it be accomplished by the effects of nature, or obtained by the action of medicine, is always succeeded by a mitigation of pain. This disease is most prevalent in warm climates, and in temperate climates during the warm season of the year; and in countries, and situations, and in particular seasons, also, most favourable for the production and existence of intermittents, remittents, and bilious fevers; and indeed it is frequently combined with these diseases; of this circumstance my opportunities led me to frequent observation during the last season, when bilious fever and dysentery prevailed; the former extended, through low and humid situations, where the atmosphere was dense, and moist exhalations were continually rising; whereas in elevated situations, those usually denominated high and healthy, the latter disease

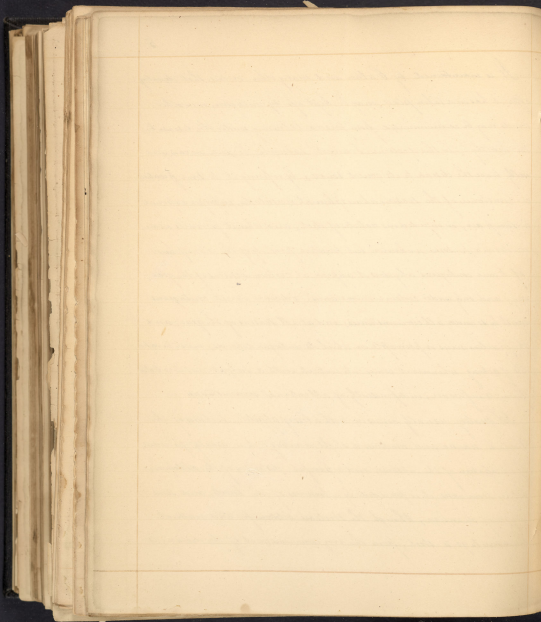


prevailed to the exclusion of the former. The remote causes of dysentery are various; the following may however be deemed most frequent; sudden and great vicissitudes of the atmosphere from heat to cold; the exposure of the body when fractionally warm, or deprived of its accustomed covering to cold or humid air; sleeping upon wet or damp ground; and long application of moisture to the surface of the body, by wearing wet or damp clothes, all of which act by checking perspiration, and determining an unusual quantity of blood to the abdominal viscera. Among the remote causes of dysentery, we usually find enumerated certain ingesta taken into the stomach, as animal food verging to a state of putrefaction; acid and unripe fruits, and even ripe fruits when taken in immoderate quantity. But the action of the latter set of causes is not quite so intelligible, because, as they are applied immediately to the surface of the stomach and intestines, a priori we should be induced to expect diarrhoea and not dysentery. Nevertheless we must admit that dysentery is frequently produced by unripe fruits taken immoderately, but we apprehend ripe fruits seldom or ever produce this disease, and on the contrary if judiciously employed, will act as a stimulant by keeping up the peristaltic motion of the alimentary canal.

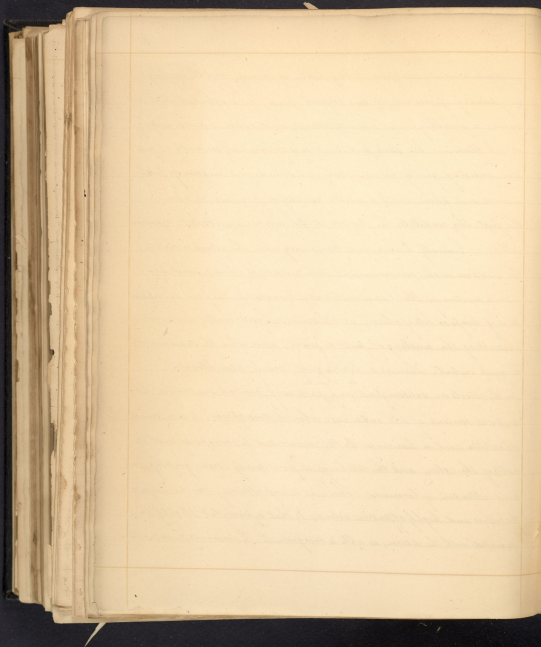


It is maintained by Cullen and many other writers, that dysentery after it has once taken place, may be kept up by contagion, or in other words may be communicated from persons labouring under the disease to the healthy. To this doctrine I cannot subscribe, because we can generally trace the disease to its correct source, by referring it to some peculiar circumstance of the season, atmospherical vicissitudes, improper exposure to damp air, or injudicious articles of diet; and when it prevails as an epidemic to some unknown but peculiar property of the atmosphere. If it were contagious why does it appear at certain seasons of the year only; and only under certain circumstances? a disease strictly contagious must be so under all circumstances, and at all seasons of the year; and the peculiar virus or principle on which its contagion depends, must be capable of acting whenever it comes into contact with a subject not protected from its influence, independently of all external circumstances.

Dysentery usually comes on with a loss of appetite, sickness of the stomach, nausea and sometimes a slight vomiting: it is usually preceded by constipation of the intestines, and a painful distention of the abdomen; but in some cases it is preceded by a looseness of the bowels, and some degree of diarrhoea, though the stools are seldom free and natural. The desire to go to stool, from the very commencement of the disease, is



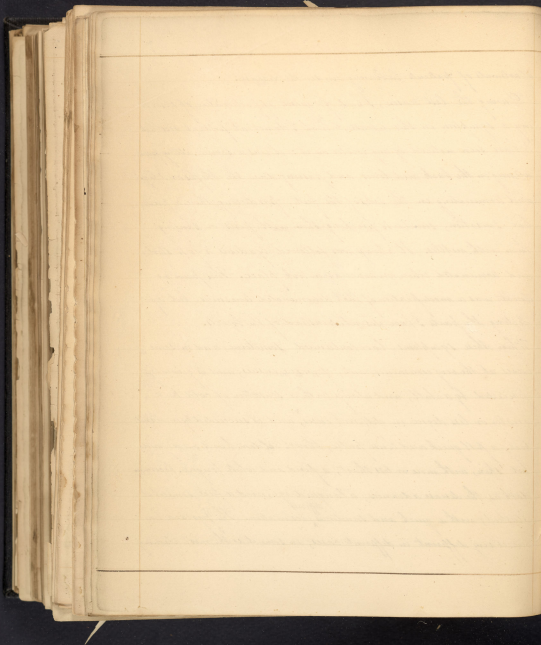
frequent, and in indulging it, very little is voided; but the discharge is generally preceded by some gripping pain, and attended with tormina; a rumbling noise usually attends, and there is a discharge of much flatus. The stools put on various appearances; commonly at first they consist of frothy mucus alone; at other times a mixture of frothy mucus and slime, with a small quantity of feculent matter; in the first they constitute the disease called *morbus mucosus* or dysentery album. Usually however, and particularly when the attack is violent, the stools at the commencement are coloured with blood; sometimes we have a mixture of blood and undissolved mucus, putting on the appearance of lumps or bits of cheese; at other times a liquid matter is voided resembling the washing of putrid meat; and when the disease is extremely violent, there is a discharge of nearly pure blood. In the stools we seldom find any portions of feculent matter, as the natural contents of the intestines; when it does appear, it is in small quantities and in hardened balls, moulded to correspond with the cells of the colon, and the discharge is preceded by severe gripping pain, and attended by tormina. There is always attending the discharge a peculiar and highly offensive odour, so that a person but slightly acquainted with the disease, is able to recognise it the moment he enters the



apartments of patients labouring under the disease.

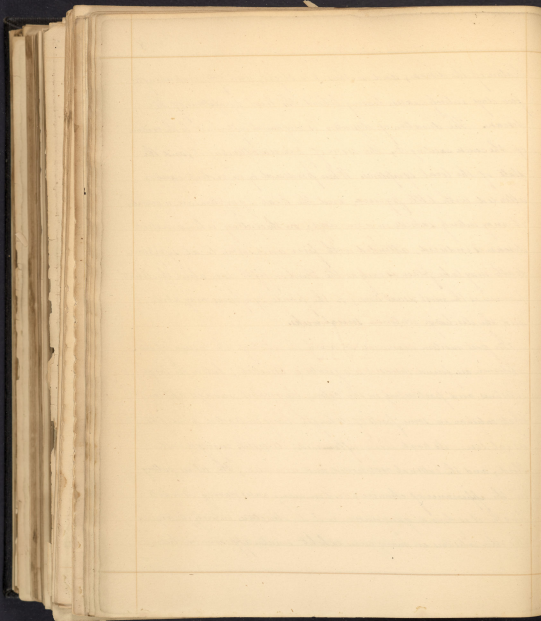
During the last season, I had frequent opportunities of observing a symptom in this disease, which I do not at present recollect to have seen noticed by any writer on it: it was a severe cutting pain, arising in the back and loins, and passing down the thighs and legs, and terminating in the soles of the feet, producing there a peculiar sensation, similar to pricking them with pins, or stinging them with nettles. It always was followed by a desire to go to stool, and terminated when an evacuation took place. This pain no doubt was a modification of that denominated tenesmus, but affecting the parts I have described instead of the bowels.

When these symptoms have continued sometimes, and in some cases at the very commencement, prostration ensues; and is generally preceded by a chill, and always with a sensation of cold to a greater or less degree in different cases; and is succeeded by increased heat, a full quick and tense pulse, though seldom hard; a dry and hot skin, with more or less thirst; a furred and white tongue, becoming dark as the disease advances; a languid eye, and a face somewhat flushed; with a quick and sometimes ^{difficult} respiration. The prostration however is very different in different cases; in some it is the most alarming



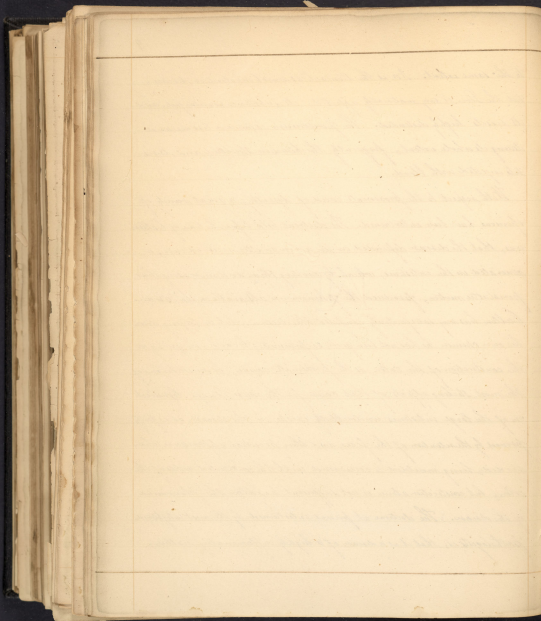
feature of the disease; and in this it is slight; and after continuing a few days entirely ceases, leaving behind the local symptoms of the disease. The duration of dysentery is very much influenced by the violence of the cause exciting it; the degree of pyrexia attending it; and the state of the local symptoms. When produced by no violent cause; attended with little pyrexia, and the local symptoms are moderate, it may entirely subside in a few days; on the contrary when a violent disease is induced, attended with fever and severe local symptoms, death may take place as early as the third or fifth day, about the eleventh however is the most usual time; as the febrile symptoms may abate and the discharge continue several weeks.

In post mortem examinations, nearly the whole of the viscera of the abdomen are found diseased to a greater or less extent; but in the large intestine, and particularly in the colon, the greatest ravages appear; that intestine in some parts of its length being contracted to half its usual size; its coats highly inflamed; its vessels engorged with blood, and the external coat rotten and ulcerated; the ulcers putting on the appearance of chancre; and in many cases during its whole length it is found gangrenous, and its structure entirely destroyed. The other intestines in many cases exhibit similar appearances, but not



to the same extent. Nor is the Stomach as much involved in disease, but the Liver is very materially affected; its substance is enlarged, and its vessels highly distended. The Peritonium is more or less diseased during its whole extent; frequently thickened in structure and its vessels injected with blood.

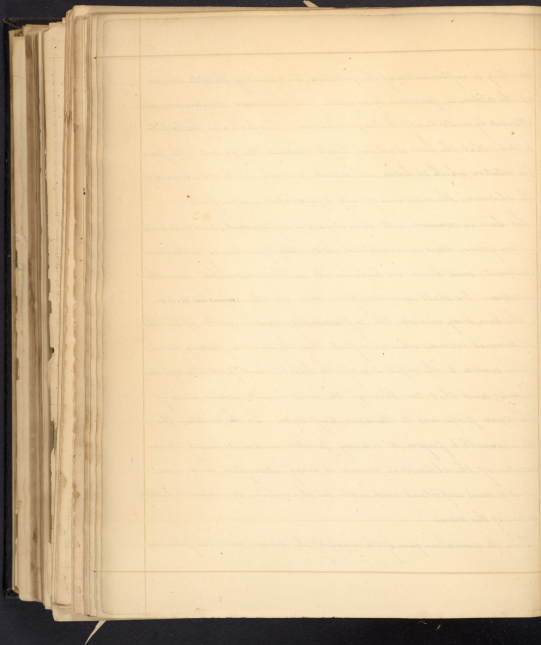
With respect to the proximate cause of dysentery, a great variety of opinions have been entertained. The doctrine held before the time of Cullen was, that the disease depended on an acid matter secreted into, or generated in the intestines, which by exciting them and increasing their peristaltic motion, produced the phenomena observable in the disease. Cullen has very satisfactorily confuted this doctrine, but in laying down his own opinion he has not been quite so fortunate; because, in giving as the constriction of the colon as the proximate cause, he mistakes one of the most striking effects of that cause for the cause itself. Constriction of the large intestines undoubtedly exists in this disease, as is fully proved by the retention of the feces, and their peculiar appearance when voided, being moulded to correspond with the contracted cells of the colon; but constriction alone is not sufficient to explain the phenomena of the disease. The doctrine at present entertained by the most enlightened pathologists is, that it is a disease of a highly inflammatory nature,



consisting in inflammation of the intestines, and most of the other viscera of the abdomen, preceded by congestion from suppressed perspiration, and attended by constriction of the large intestines. To which may perhaps be added, that the Liver is not only highly diseased itself, but by the peculiar relation which it holds with respect to nearly all the other viscera of the abdomen, the disease is greatly aggravated in other parts.

The Liver in common with other organs is inflamed, and in a state of congestion, thus circumscribed its secretory functions for the time destroyed; and hence we have no bile in the evacuations from the intestines. We shall immediately conceive how the diminished action of the liver, may increase the inflammation and congestion of the other abdominal viscera, when we reflect that the blood in passing from these viscera to the right side of the heart, must pass through the liver, and that too through the most minute ramifications of the vena portarum to the ascending caecum. In this condition the liver is unable to perform its ordinary function, and consequently the circulation of the abdominal viscera is nearly intercepted, and hence it is a most important indication in this disease, to restore the healthy action of this viscus.

From the views above given of the causes of the disease, and the phenomena



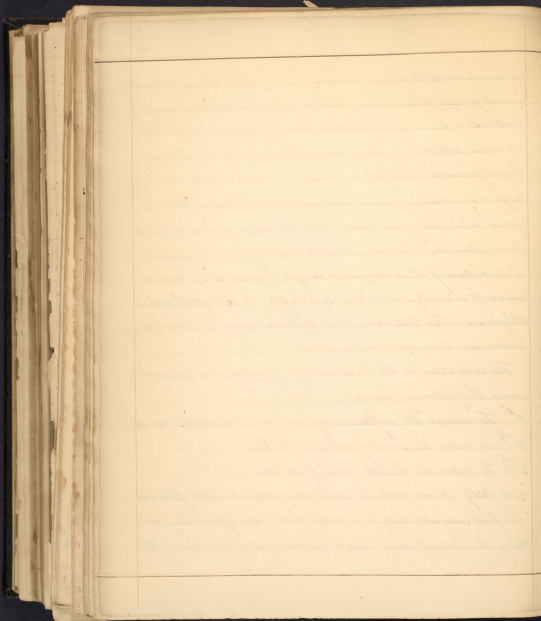
na which attend its course, the mode of treatment is plainly indicated; and it gives me pleasure to say, that the present enlightened plan of treatment, when early adopted and carried to the requisite extent, in the usual appearance of the disease, seldom fails to effect a cure. When a failure does take place, it may in general be attributed to a neglect of applying for medical aid until the disease has completely taken hold of the system, and produced so great a prostration of strength, that an energetic treatment is inadmissible; or the violence of the existing cause may be so great, as to induce a disease of so violent a nature, as to baffle the skill of the ablest Physicians. The latter cause of our failure in curing the disease, is however much more rare than the former.

The indications in the treatment of dysentery, may arranged under the following heads.

- 1st To remove the inflammatory condition of the intestinal canal
- 2^d To restore the secretory action of the Liver
- 3^d To restore the healthy action of the Skin

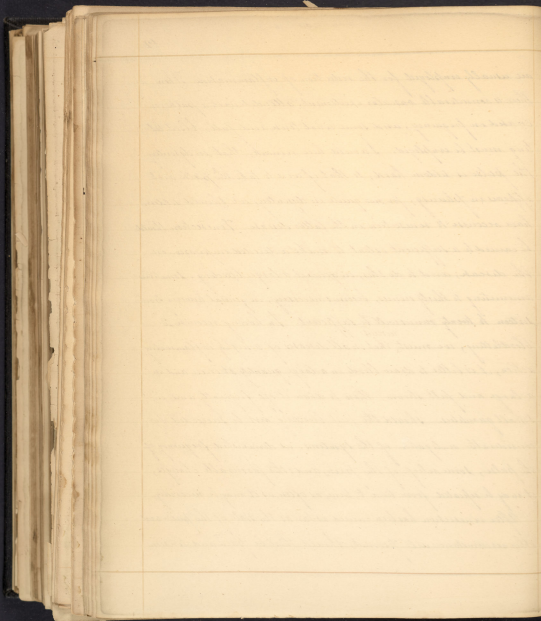
and lastly To invigorate the system, and restore its healthy functions.

The first indication may be answered, that is, the inflammatory condition of the intestinal canal may be removed, by all those remedies that



are usually employed for the reduction of inflammation. When there is considerable vascular excitement, attended with a pulse increased in frequency, and some what tense and full, blood letting must be employed. I would here remark, that in dysentery the pulse is seldom hard, so that if we are to take the pulse as it appears in phlegm, for our guide in dysentery, we should seldom have recourse to venesection in the latter disease. Venesection should be carried to a sufficient extent to make a decided impression on the disease; and to do this, in general a large bleeding, sometimes amounting to thirty ounces, becomes necessary, in general however from sixteen to twenty ounces will be sufficient. In having recourse to bloodletting, we must, ^{next best} that in all diseases of a highly inflammatory action, it is better to draw blood in a large quantity at once, and in a large and full stream, than to draw it off frequently and in small quantities. Should the first bleeding not be succeeded by considerable mitigation of the symptoms, as diminished frequency of the pulse, some relief of the pain, and other favourable changes, it may be repeated from time to time as often as it may be necessary.

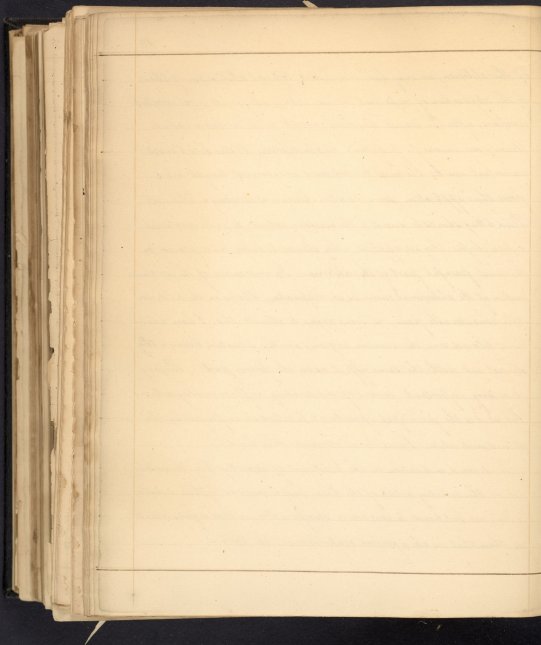
After venesection has been carried as far as the state of the pulse and other circumstances will permit, should there be pain and tension



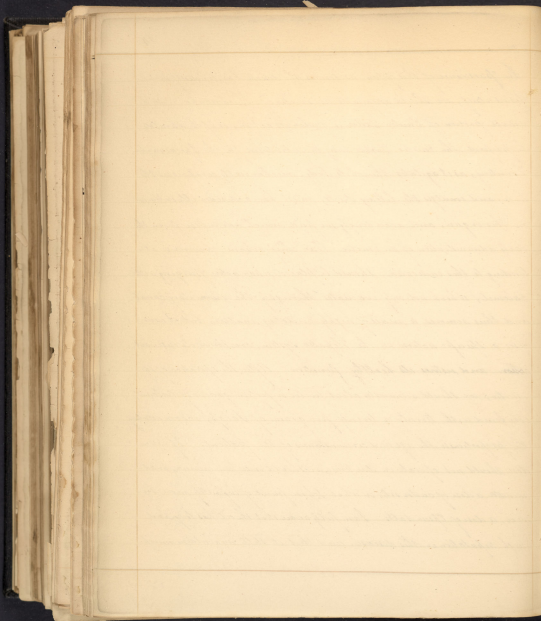
of the abdomen, we may have recourse to topical abstraction of blood, by the application of cups and leeches, which are found most excellent remedies, after the lancet has been carried to the necessary extent.

Among our means for fulfilling this indication, blisters hold a most important rank; the most decided and unequivocal benefit arises from their application. Some dissection however is necessary in these cases; blood letting should be carried to the necessary extent to reduce arterial action, before they are applied; they should be large, and placed on the most painful part of the abdomen. In consequence of the continuous motion of the abdominal muscles in respiration, blisters on the abdomen give considerable pain; in some degree to obviate this, I have known them placed over the lumbar region; in this situation however they do not act with the same effect as on the former part. Rugging is a very important means of moderating inflammatory action, but as it is the principal operation to be relied on in fulfilling the second indication, I must treat of under that head.

The second indication in the treatment of dysentery viz The restoration of the secretory action of the bowels, may be answered by those remedies which are supposed to exercise a specific action on that organ, as well as those that make a general impression on the system.



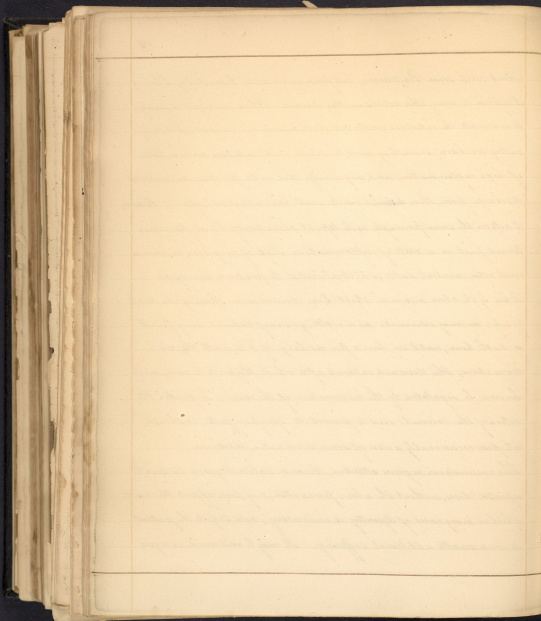
In pursuance of this plan, as soon as the disease has decidedly manifested itself, we should administer an emetic of *Spicacuanha* with a small portion of Emetic Tartar to quicken its action, or if it should be profered the Emetic Tartar may be substituted for the *Spicacuanha*. Emitting, as it agitates the whole body, mechanically compresses the liver, and empties the biliary ducts, must have a considerable influence on this organ, and accordingly we find much advantage from the early administration of an emetic. Our chief reliance, however in attending to this indication, should be placed upon action purging with Calomel, which not only evacuates thoroughly the alimentary canal and thus removes a mass of highly irritating matter, but it exercises a specific action on the Hepatic system, overcomes its diseased action and restores its healthy function. After the operation of the emetic, we should administer about twelve or fifteen grains of Calomel combined with twenty or twenty five grains of Salap, according to the proportion of the age and circumstances of the patient. If the dose should not operate in due time, we should order an emema, or administer a dose of castor oil, or what I have found of infinitely more service, a dose of Epsom salt. I am fully aware that the oil has long had high reputation in this disease, and that it still maintains much



credit with some Practitioners, but from experience I must say I have found it inferior to many other articles in this disease. When our object is merely to evacuate the intestines castor oil will answer our purpose, but in dysentery we have something more in view, — the intestines are in a state of high inflammation, and any remedy that will produce an increased discharge from their distended vessels must have a purgative effect, — because it acts on the same principle as the topical abstraction of blood from an external part in a state of inflammation. Sulp. of magnesia in common with other neutral salts is well calculated to produce this effect.

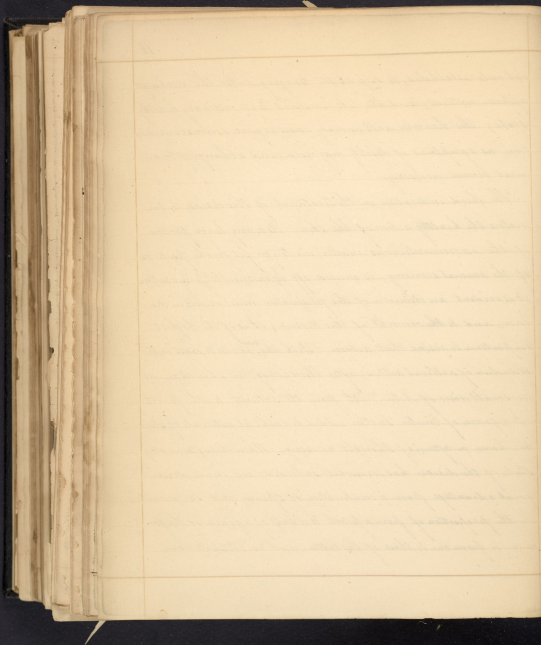
When by the above means we shall have succeeded in opening the bowels freely, we may administer six or eight grains of Calomel every fourth or sixth hour, until we have a free discharge of bile, with the alvine evacuations; the doses and intervals after which they are to be given, must however be regulated by the circumstances of the case. To quicken the action of the Calomel, and to prevent its specific effects, we should interpose occasionally a dose of some more active medicine.

This circumstance requires attention, because Calomel given in small repeated doses, without the above precaution, very soon affects the mouth, which in many cases of dysentery is unnecessary, and subjects the patient to considerable additional suffering. It may be considered as a ge-



nal rule established, to keep up the purging until the discharges appear natural, and the bile restored to its ordinary healthy state; this however will in many cases require serious consideration, as symptoms of debility may arise, and a change of treatment become necessary.

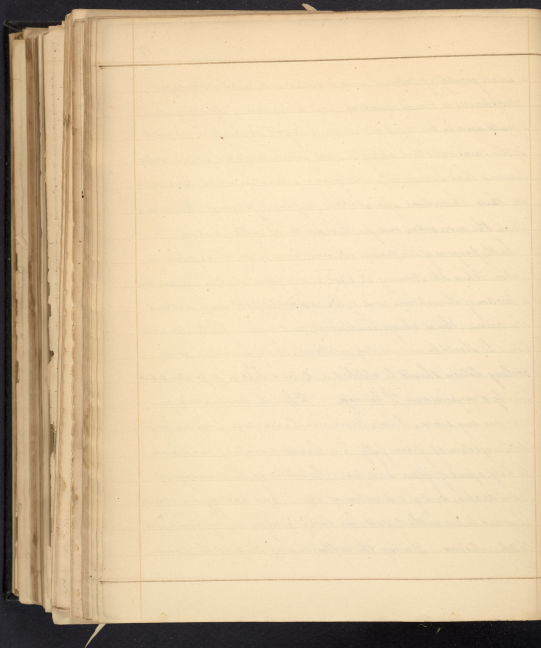
The third indication in the treatment of this disease is, to restore the healthy action of the skin. As a very large portion of the excrementitious matter, no longer fit for the purposes of the animal economy, is carried off by sensible perspiration, it is evident an obstruction of this perspiration must result in disease, and to the removal of this disease, it is of the highest importance to restore that action. With this, ^{and} also to assist in the reduction of arterial action, after blood letting, we should administer small doses of Nitre, with from the sixteenth to the fourth of a grain of Emetic Tartar added to each, at intervals of about two hours, or oftener if thought necessary. When the inflammatory state of the disease has somewhat subsided, we shall derive great advantage from a combination of Opium and Hecacauba, in the proportion of from a sixth to a half of a grain of the former, to from one to three of the latter, and in obstinate cases



a small quantity of Calomel may be added with much advantage.

Diaphoresis is a most important part in the cure of dysentery, and should never be lost sight of; in inducing it we are to be governed by the same rules that apply to other febrile diseases. I must confess however, that I think Dr. Mosely and some other writers, have carried this theoretical speculations too far, in placing this remedy above the more active ones for the direction of inflammation.

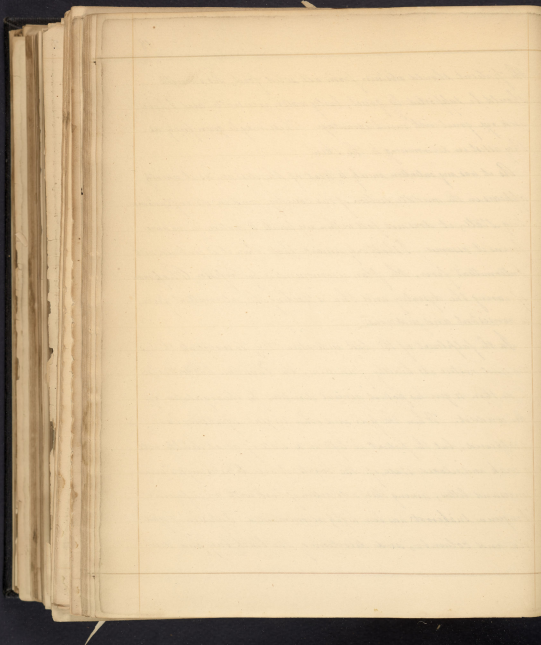
In the progress of the disease circumstances arise which require attention. When the straining at stool is very severe, it often happens that a portion of the internal coat of the rectum is protruded without the anus; this is always troublesome, and requires particular attention. It should be immediately replaced, and if inflamed some cooling lotion should be applied to it, and kept in its proper situation by a compress and T bandage. When the tormina and tenesmus are very severe, I have found much advantage from an anodyne injection of from fifty to a hundred drops of Laudanum in half a pint of flax seed tea. Injections of the mucilage of Gum arabic, and of a decoction of starch, and particularly of fresh churned butter without salt, are highly grateful to ^{the} inflamed irritated intestines. During the inflammatory stage of the disease



the patient should abstain from all solid food; his strength should be supported by gruel, barley water, rice water, and I have used rye gruel with much advantage. These may be given freely as they assist in alluvium to the skin.

As it was my intention merely to treat of the disease as it usually appears in the middle section of our country, and in its inflammatory stage, it does not fall within my limits to notice the various forms it assumes. I shall only remark that when it is combined with intermittent fever, the plan recommended by Professor Chapman of curing the dysentery and then attacking the intermittent fever, is consistent and judicious.

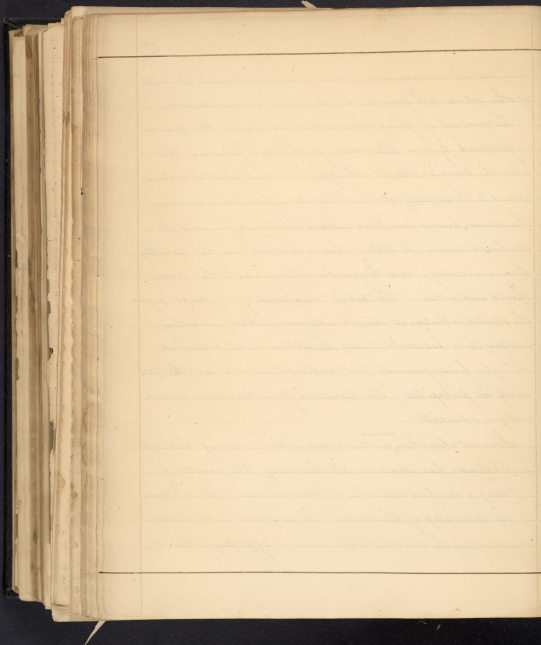
In the fulfilment of the last indication viz. to invigorate the system and restore its healthy functions, the Physician has little else to do, than to give his patient general directions for the regulation of his conduct. When the fever and other urgent symptoms have disappeared, but the patient is left in a state of great debility, with a weak and relaxed state of the bowels, it will be necessary to administer bala and bella; among them a decoction of bark with an infusion of Virginia snake-root has been highly recommended. Infusion of gualia and columbo, and decoctions of the black berry and dew



herbs, are in many cases used with advantage; besides a number of other articles, both from the vegetable and animal kingdom.

The propriety of giving astringents in any stage of this disease is questioned by some Practitioners; for it may be presumed that when the disease is attended with signs in the onset, and the treatment carried to the necessary extent, astringents will seldom be necessary. The disease however sometimes assumes the chronic form, and the discharges assume the state of those in dysentery; in that case they become necessary; and the remedies appropriated to that disease should used in this. The diet of convalescents of the disease requires the strictest attention: it should be light and moderately nourishing; and any thing that would irritate the intestines must be avoided. The lighter kinds of animal food and vegetables possessing the least acidity are perhaps best. Spirituous and fermented liquors are generally inadmissible.

I cannot close these ^{remarks} on this disease, without observing that Dr. Ross in Chapman has introduced into this country, the practice of applying a compress and roller of flannel around the abdomen in the latter stage of the disease. It answers the double purpose of supporting the relaxed intestines and of affording to them a



proper degree of warmth. Much advantage already has been
 gained by this practice, and no doubt it will become much
 more extensively useful.

By the practice

By

Henry Loomis

Practical History of the

